

REMARKS

Applicants appreciate the Examiner reopening prosecution in response to the Pre-Appeal Brief Request For Review filed January 5, 2007. In response, Applicants have amended independent Claims 1 and 18 to clarify the relationship between the elements cited therein. Applicants have also amended Claims 34 – 49 so that they are written as computer program product claims. Applicants respectfully submit that the cited reference fails to disclose or suggest, at least, the recitations of independent Claims 1 and 18. Accordingly, Applicants submit that all pending claims are in condition for allowance. Favorable reconsideration of all pending claims is respectfully requested for at least the reasons discussed hereafter.

Section 112 Rejections

Claims 1 - 49 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite. With respect to Claim 1, the Office Action states that it is unclear how the first four specification elements are related. (Office Action, page 2). In response, Applicants have amended independent Claim 1 to clarify the relationship between the four specification elements and the quality of service specification derivation element.

With respect to Claims 2 - 17, the Office Action states that it is unclear what "computer system" is being referred to. (Office Action, page 2). In response, Applicants have amended Claim 1 to recite "[a] computer system."

With respect to Claims 18 - 49, the Office Action states that the references to components, control flows, data flows, and resources are unclear in independent Claim 18. (Office Action, page 3). In response, Applicants have amended independent Claim 18 to correct the antecedent basis errors.

In view of the above amendments and remarks, Applicants respectfully submit that Claims 1 - 49 satisfy the requirements of 35 U.S.C. §112.

Section 101 Rejections

Claims 1 and 3 - 17 stand rejected under 35 U.S.C. §101 as being non-statutory as allegedly being a compilation of facts or data without any functional interrelationship. (Office Action, page 3). Applicants have amended Claim 1 to clarify the relationship between the four

specification elements and the components, control flows, data flows, and resources. Moreover, the quality of service specification derivation element is described as generating both an application model and a quality of service specification derived by implication from the components, control flows, data flows, and resources. Thus, Claim 1 is not merely an aggregation of information or data, but is instead a system that comprises multiple elements that cooperate with one another so that an application model and a quality of service specification can be output. Applicants submit, therefore, that Claims 1 and 3 - 17 qualify as statutory subject matter under 35 U.S.C. §101.

Claims 34 - 49 stand rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter. (Office Action, page 4). Applicants have amended these claims to be computer program product claims comprising computer program code on a computer readable medium. Section 2106.01 of the MPEP states:

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." **In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component.** (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works, and a compilation or mere arrangement of data.

Both types of "descriptive material" are nonstatutory when claimed as descriptive material *per se*, 33 F.3d at 1360, 31 USPQ2d at 1759. **When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized.** Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994)(discussing patentable weight of data structure limitations in the context of a statutory claim to a data structure stored on a computer readable medium that increases computer efficiency) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory). (Emphasis added).

According to Section 2106.01 of the MPEP, computer readable program code is considered "functional descriptive material." Moreover, Section 2106.01 of the MPEP goes on to explain

that functional descriptive material recorded on a computer readable medium constitutes statutory subject matter. In addition, the Federal Circuit has held that computer program product claims, such as Claims 34 - 49, qualify as statutory subject matter (see, *e.g.*, *In re Beauregard*, 53 F.3d 1583 (Fed. Cir. 1995)).

Applicants submit that for at least the reasons recited above, Claims 34 - 49 qualify as statutory subject matter under 35 U.S.C. §101.

Independent Claims 1 and 18 are Patentable

Independent Claims 1 and 18 stand rejected under 35 U.S.C. §102(e) as being anticipated by U. S. Patent Publication No. 2002/0059079 to Negri (hereinafter "Negri"). Independent Claim 1 is directed to a system for component-based processing and recites, in part:

...
a component specification element that specifies components; a control flow specification element that specifies control flows; a data flow specification element that specifies data flows; a resource specification element that specifies resources; and a quality of service specification derivation element, the quality of service specification derivation element having for output an application model in combination with a quality of service specification derived by implication from relations between the components, the control flows, the data flows and the resources; wherein said quality of service specification is made available to a runtime engine for deployment as a runtime contract in a runtime processing environment. (Emphasis added.)

Independent Claim 18 includes similar recitations. As highlighted above, independent Claim 1 recites five distinct elements: a component specification element, a control flow specification element, a data flow specification element, a resource specification element and a quality of service specification derivation element. In rejecting independent Claims 1 and 18, the Office Action cites the description of Negri's eService business model, which begins at paragraph 45. In particular, Negri defines the aspects of the eService model in paragraphs 48 – 50. While Applicants acknowledge that Negri discloses defining components of a service, which may be software and/or physical elements (Negri, paragraph 48). Applicants respectfully submit that Negri does not disclose or suggest defining a control flow specification element, a data flow

specification element, a resource specification element, and/or a quality of service specification derivation element.

The Office Action cites the following sentence from paragraph 46 of Negri as disclosing the control flow specification element and the data flow specification element: "The business process involves the flow of data and control through a complex arrangement of these components coupled to the web server and client interface." (Office Action, page 6). Negri, however, does not disclose or suggest creating elements that specify the particular data flows and control flows as recited in independent Claims 1 and 18.

The Office Action cites the reference in paragraph 50 of Negri to the components sharing common resources as disclosing the resource specification element. (Office Action, page 6). Negri, however, does not disclose or suggest creating an element that specifies the resources in the eService model. Negri merely explains that components can share common resources. (Negri, paragraph 50).

The Office Action cites the recitation in Claim 1 of Negri directed to deriving an e-service management strategy as disclosing the quality of service specification derivation element. (Office Action, page 6). Negri describes deriving an e-service management strategy based on a business process specification where the e-service management strategy is used to ensure the quality of the e-service. (Negri, claim 1). The quality of service specification derivation element of Claim 1, however, outputs **both** an application model and a quality of service specification. Negri does not appear to disclose or suggest outputting an application model in addition to the e-service management strategy.

Accordingly, for at least the foregoing reasons, Applicants respectfully submit that independent Claims 1 and 18 are patentable over Negri and that Claims 2 - 17 and 19 - 49 are patentable at least per the patentability of independent Claims 1 and 18.

In re: Beaven et al.
Serial No.: 09/808, 501
Filed: March 14, 2001
Page 13

CONCLUSION

In light of the above amendments and remarks, Applicants respectfully submit that the above-entitled application is now in condition for allowance. Favorable reconsideration of this application, as amended, is respectfully requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (919) 854-1400.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "D. Scott Moore". The signature is fluid and cursive, with the first name "D." and last name "Moore" clearly distinguishable.

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